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(54) **MANUFACTURE OF SEMICONDUCTOR DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To realize a manufacturing method of a semiconductor device, which suppresses the width of tapering generated on the sidewalls of a resist, and enables acurate lithography.

SOLUTION: This manufacturing method of a semiconductor device comprises a process, wherein an aperture formed in a prescribed pattern is provided on a semiconductor substrate 1 and a resist mask 3b formed with a tapered part is formed on the sidewall of this aperture, a process where a water-soluble resist film 9, which is turned into a nonwater-soluble resist film when being reacted with an acid is formed on the mask 3b, a process where the film 9 and an acid are made to react with each other to form an nonwater-soluble site 9a on the tapered part, a process where the site 9a is left to remove a water-soluble resist film 9b, whereby a resist mask consisting of the site 9a formed on the tapered part and the mask 3b is formed, and a process where impurities are implanted from the upper part of this resist mask into the substrate 1 to form an impurity region in the substrate 1.